The official voice of the Air Force Research Laboratory
news@afrl
Lab Laurels
October 2002

Roquemore named 2002 ASME Fellow

by Michael Kelly, Propulsion Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio— Dr. William M. Roquemore, senior research scientist for the Air Force Research Laboratory's Propulsion Directorate, was recently named an American Society of Mechanical Engineers (ASME) Fellow for 2002.

The honor recognizes Roquemore's significant achievements and contributions to the engineering profession as senior research scientist in the field of air-breathing combustion, diagnostics and fuels technologies, said Dr. Sivaram Gogineni, Dayton's ASME honors and awards chairman.

Roquemore, who has bachelor's, master's and doctorate degrees in physics — and nearly 40 years of research to his credit — is also a Wright Laboratory Fellow (1989), AFRL Fellow (1991), and an American Institute of Aeronautics and Astronautics Fellow (1999), Gogineni said.

"Dr. Roquemore made significant contributions to air-breathing combustion with his co-invention of the revolutionary trapped vortex combustor, or TVC, " Gogineni said. "His work on the TVC demonstrates significant improvements in performance while drastically reducing engine emissions. With this ground-breaking approach to combustor design, the TVC has the potential to expand the flight envelope of Air Force aircraft by reducing engine blow-out while significantly reducing harmful emissions."

The TVC concept won Roquemore and his multi-agency team the 2001 Pollution Prevention Program of the Year award from the Strategic Environmental Research and Development Program Office.

The senior combustion scientist also holds patents for a fiber optic device that measures temperature remotely, and for materials designed to prepare vertical take-off and landing sites. His body of work includes research efforts in thermally stable jet fuels and integrated fuel system technologies. In addition, he has published more than 150 research and technical articles that have identified technical barriers and then formulated innovative and pioneering approaches to overcome them, Gogineni said.

Despite the long list of accomplishments, the Lanette, Ala., native believes his most important work hasn't happened yet.

"I think the most important work is yet to be done," he said. "I still see a lot of opportunities to explore and discover. We're working on a lot of different ideas right now."

The freedom to explore ideas remains his favorite part of the job he's been at since joining the AFRL team in 1963.

"That's what drives me. It's the ideas that are key," he explained. "AFRL has always been an environment that supports the exploration of ideas."

ASME promotes and enhances the technical competency and professional development of its members through quality programs and activities in mechanical engineering, according to Gogineni.

ASME Fellows are honored for promoting the art, science and practice of mechanical engineering throughout the world, he said. Fellows are the highest elected grade of membership within ASME, the attainment of which recognizes exceptional engineering achievements and contributions to the engineering profession. **@**